

ADDITIONAL N₂O YOKE

INSTALLATION PROCEDURE

NOTE: This procedure applies to NM2A, NM2B, NM3 and NM4 without a drop leaf table top; domestic and CSA machines with or without yoke spacer blocks.

1. Disconnect all pipeline hoses and set the System Power switch to ON.
 2. Close all cylinder valves except the O₂ valve.
 3. Set the oxygen flow to 5 liters per minute.
 4. Open the other gas flow control valves to drain pressure from the system.
 5. Close the oxygen cylinder valve, and close all flow control valves. Press the O₂ Flush valve to drain oxygen pressure from the system.
 6. Set the System Power switch to STANDBY.
 7. Remove the screws securing the table top to the machine and remove the table top.
 8. Pull the writing or keyboard tray out to its fully extended position (if applicable).
 9. Position the N₂O yoke assembly next to the existing N₂O yoke on the yoke spacer block at the back of the machine (see Figure 1). Secure the assembly to the machine frame with two 5/16-24 x 1-3/4 in. socket head screws and lock washers.
- If the machine is an older type without a yoke spacer block, use two 5/16-24 x 3/4 in. socket head screws and lock washers.

WARNING: The nitrous oxide cylinder pressure gauge must indicate 0 Psi before continuing with this procedure.

For CSA machines, install a 7/16 ID vinyl cap on the head of each screw. Secure the caps with a small amount of Loctite #416 on the inside of each cap.

10. Locate the TEE fitting at the inlet port of the N₂O cylinder pressure regulator, and remove the plug from the TEE fitting. See Figure 2.

INSTALLATION PROCEDURE (continued)

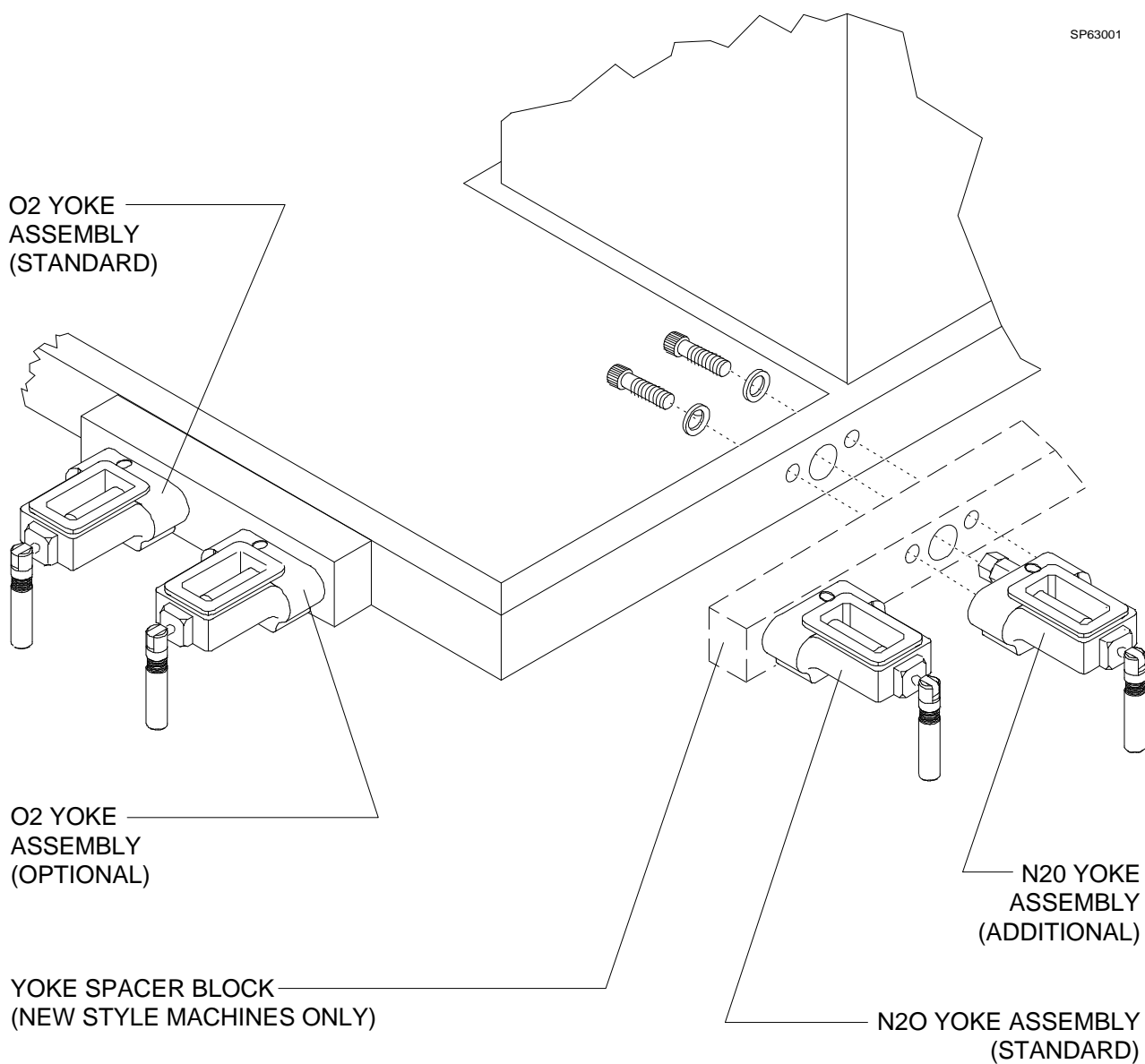
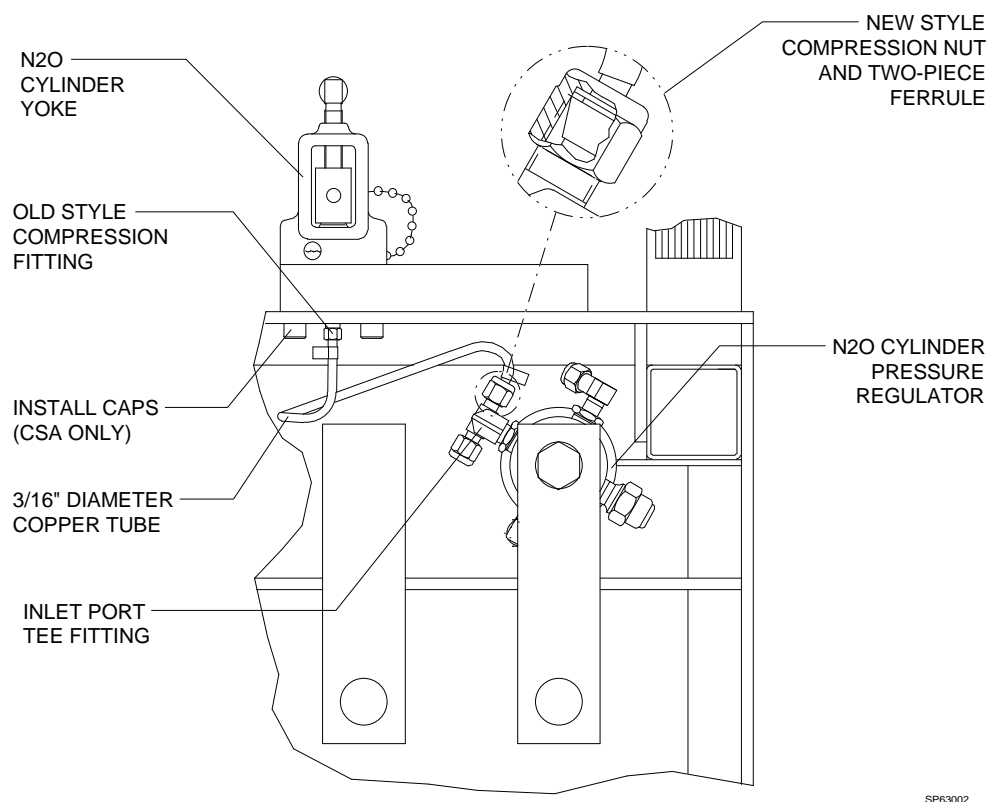


Figure 2: INSTALLATION OF ADDITIONAL N₂O YOKE

INSTALLATION PROCEDURE (continued)

11. If the machine has a yoke spacer block, use 3/16 in. pre-bent copper tube P/N 4111169. If the machine does not have a yoke spacer block, use 3/16 in. pre-bent copper tube P/N 4104183. Connect the 3/16 in. diameter tube between the N₂O yoke assembly check valve and the TEE fitting in the N₂O cylinder pressure regulator inlet port (see Figure 2). Carefully form and trim the tubing as necessary, and install the correct style 3/16 in. compression nut and ferrule on the inlet port end of the tube.

Tighten the connections at both ends securely, and install a blue "N₂O" label at each end of the tube.
12. Reinstall the table top with the screws that were previously removed.
13. Attach an N₂O cylinder to the N₂O yoke, making sure that a sealing washer is correctly installed and the index pins are properly engaged before tightening the bolt. The cylinder should hang vertically after the handle is tight.
14. Perform the tests outlined in the next section.



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Figure 3: COPPER TUBE CONNECTIONS

TEST PROCEDURE

Leak Test

1. Open the cylinder valve, and let the pressure stabilize. The N₂O cylinder used for this test must have a minimum pressure of 700 Psi, as indicated on the corresponding cylinder pressure gauge.
2. Close the N₂O cylinder valve and remove the cylinder from the yoke.
3. Observe the N₂O cylinder pressure gauge; after two minutes, the pressure shall not drop more than 50 Psi.
4. Re-attach the N₂O cylinder in the yoke.

Nitrous Oxide Flowmeter Test

5. Open an oxygen cylinder valve, and open the nitrous oxide cylinder valve.
6. Set the oxygen flow to 4 l/min.
7. Open the N₂O flow control valve and ensure that it is possible to adjust the flow of nitrous oxide over the full range of the flowmeter.
8. Close the cylinder valves.

Oxygen Concentration Test

9. Connect a 12-inch hose to the inspiratory valve.
10. Set the Man/Auto selector to BAG.
11. Close the APL valve.
12. Occlude the bag mount.

13. Insert the sensor from a calibrated oxygen analyzer into the valve dome adapter on the inspiratory valve.
14. Close all flow control valves.
15. Open an oxygen cylinder valve, and open the nitrous oxide cylinder valve.
16. Depress the O₂FLUSH button for 15 seconds.
17. Set the oxygen flow to 4 l/min.
18. The oxygen analyzer shall read 97-100% within 3 minutes.
19. Set the nitrous oxide flow to 2 l/min.
20. The oxygen concentration shall be 64-70%.
21. Close the N₂O cylinder valve to drain nitrous oxide pressure from the system.
22. Close the N₂O flow control valve.
23. Close the O₂ cylinder valve to drain oxygen pressure from the system.
24. Close the O₂ flow control valve.
25. Reattach the pipeline pressure hoses.
26. Perform a complete PMS procedure on the machine.



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